

Assignment No.2: Sessions Manager Simulator (6 Grades)

In this Assignment, you are required to build one jsp page and two servlets to simulate the Sessions Manager existing in the web server according to the following details:

- **Intro.jsp**

1. If this is the first time for the user to enter the page, S/he will be asked to enter his name, email, and phone number. Accordingly, a map object will be created and added as an attribute in the "Application" Scope (If the map object is not already created), and the user gets forwarded to "StoreTheSession" servlet.
 - This map is your sessionsManager object, its key is a string which is SessionID and its value is the session object itself.
2. If this is the second time to enter the page, it will search in the cookies for "MyCurrentSession" to get its value
3. If the cookie is not found, go back and do Step No.1
4. If the cookie is found, you need to search if there is a sessionsManager object or not
5. If sessionsManager is not found, remove the cookie and then go back and do Step No.1
6. If sessionsManager is found, you have to search into it whether it has a session object with the SessionID retrieved from the cookie
7. If a session object is found in sessionManager, you should display the user name on screen and the number of currently opened Sessions. Also you should get the user's other details from the table "user" and display it on the screen as well.

- At this stage, you should display a logout button which will direct to the **2nd servlet (“logout” servlet)** to delete the user details from the table “user”, remove session Object you found from sessionsManager and remove the cookie, then redirect to “Intro.jsp”.

8. If a session object is not found in sessionsManager, You should remove the cookie and then go back and do Step No.1

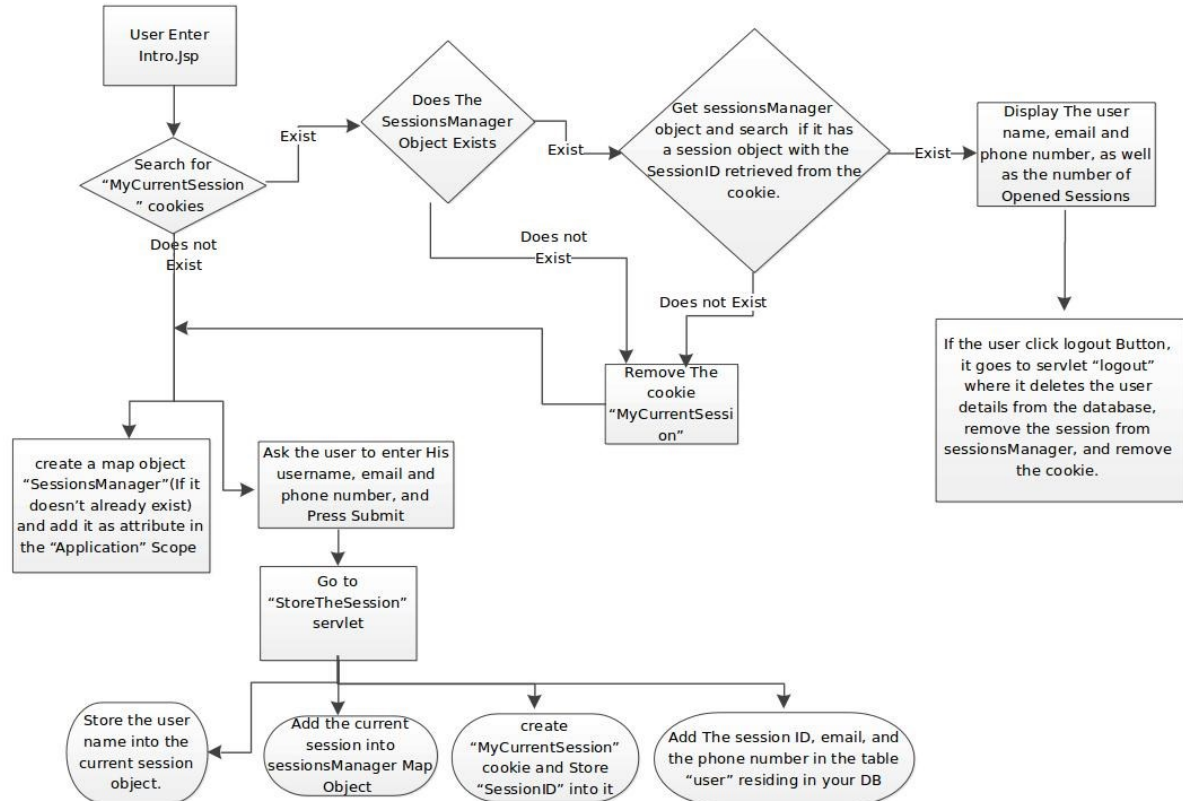
- **3rd Servlet (“StoreTheSession” servlet)**

1. This page will store the user name (received from Intro.jsp) into the current session as an attribute with the name “UName”
2. It will Add the current session into the sessionsManager Object existing in “Application” scope after setting its in-active duration to 3 minutes.
3. It also should store the SessionID in a cookie named “MyCurrentSession” with a lifetime of 3 minutes.
4. Finally, it should store the session ID, email, and phone number in the table “user” residing in your DB, **where sessionID is your primary key.**
5. At the end , it should redirect you to “Intro.jsp”

Extra Notes:

- Application Scope is used when you are required to share data among different sessions of the same web application/same website **only**.
- To access it on jsp , just use the object with name “application”
- To access it on servlet use: “request.getServletContext()”
- Use setAttribute and getAttribute methods to set and get your SessionsManager Object
- You can use “HashMap<String, HttpSession>” to create SessionManager object

Assignment Flowchart:



- The Assignment to be done individually
- The Assignment to be discussed in your lab in the week starting 4/11
- Cheating cases recognized through discussion will be graded with **ZERO**